

Name: _____

Date: _____

FOIL when $A \neq 1$ SLTN (version 112)

FOIL the expressions shown below:

1. $(5x + 3)(7x + 6)$

$$\begin{aligned} & (5)(7)x^2 + (5)(6)x + (3)(7)x + (3)(6) \\ & (35)x^2 + (30)x + (21)x + (18) \\ & 35x^2 + 51x + 18 \end{aligned}$$

2. $(-2x + 9)(-6x - 5)$

$$\begin{aligned} & (-2)(-6)x^2 + (-2)(-5)x + (9)(-6)x + (9)(-5) \\ & (12)x^2 + (10)x + (-54)x + (-45) \\ & 12x^2 - 44x - 45 \end{aligned}$$

3. $(2x - 8)(5x - 4)$

$$\begin{aligned} & (2)(5)x^2 + (2)(-4)x + (-8)(5)x + (-8)(-4) \\ & (10)x^2 + (-8)x + (-40)x + (32) \\ & 10x^2 - 48x + 32 \end{aligned}$$

4. $(6x + 8)(-5x + 4)$

$$\begin{aligned} & (6)(-5)x^2 + (6)(4)x + (8)(-5)x + (8)(4) \\ & (-30)x^2 + (24)x + (-40)x + (32) \\ & -30x^2 - 16x + 32 \end{aligned}$$

5. $(-3x + 2)(9x - 2)$

$$\begin{aligned} & (-3)(9)x^2 + (-3)(-2)x + (2)(9)x + (2)(-2) \\ & (-27)x^2 + (6)x + (18)x + (-4) \\ & -27x^2 + 24x - 4 \end{aligned}$$

FOIL the expressions shown below:

6. $(-3x + 3)(2x - 8)$

$$\begin{aligned} &(-3)(2)x^2 + (-3)(-8)x + (3)(2)x + (3)(-8) \\ &(-6)x^2 + (24)x + (6)x + (-24) \\ &-6x^2 + 30x - 24 \end{aligned}$$

7. $(-4x - 7)(2x - 8)$

$$\begin{aligned} &(-4)(2)x^2 + (-4)(-8)x + (-7)(2)x + (-7)(-8) \\ &(-8)x^2 + (32)x + (-14)x + (56) \\ &-8x^2 + 18x + 56 \end{aligned}$$

8. $(5x + 5)(8x - 6)$

$$\begin{aligned} &(5)(8)x^2 + (5)(-6)x + (5)(8)x + (5)(-6) \\ &(40)x^2 + (-30)x + (40)x + (-30) \\ &40x^2 + 10x - 30 \end{aligned}$$

9. $(2x - 7)(-5x - 7)$

$$\begin{aligned} &(2)(-5)x^2 + (2)(-7)x + (-7)(-5)x + (-7)(-7) \\ &(-10)x^2 + (-14)x + (35)x + (49) \\ &-10x^2 + 21x + 49 \end{aligned}$$

10. $(-5x - 4)(3x - 6)$

$$\begin{aligned} &(-5)(3)x^2 + (-5)(-6)x + (-4)(3)x + (-4)(-6) \\ &(-15)x^2 + (30)x + (-12)x + (24) \\ &-15x^2 + 18x + 24 \end{aligned}$$